CLAIMS:

1. A nonaqueous secondary battery comprising a positive electrode and a negative electrode both containing a material capable of reversibly intercalating and deintercalating lithium, and a nonaqueous electrolyte containing a lithium salt, wherein at least one of said negative electrode and positive electrode has at least one protective layer.

2. A nonaqueous secondary battery comprising a positive electrode and a negative electrode both containing a material capable of reversibly intercalating and deintercalating lithium, a nonaqueous electrolyte containing a lithium salt, and a separator, wherein at least one of said negative electrode and positive electrode has at least one protective layer.

3. A nonaqueous secondary battery comprising a positive electrode containing a material capable of reversibly intercalating and deintercalating lithium, a negative electrode mainly comprising a metal or semimetal oxide, a nonaqueous electrolyte containing a lithium salt, and a separator, wherein at least one of said negative electrode and positive electrode has at least one protective layer.

4. The nonaqueous secondary battery as in any one of claims 1 to 3, wherein said protective layer is formed on both of said negative electrode and positive electrode.

5. The nonaqueous secondary battery as in any one of claims 1 to 3, wherein said protective layer is formed on said negative electrode.

6. The nonaqueous secondary battery as in any one of claims 1 to 3, wherein said protective layer is formed on said positive electrode.

7. The nonaqueous secondary battery as in any one of claims 4 to 6, wherein said protective layer comprises water-insoluble particles and a binder.

8. The nonaqueous secondary battery as in any one of claims 4 to 6, wherein said protective layer comprises particles of a water-insoluble or sparingly water-soluble alkali metal or alkaline earth metal salt and a binder.

9. The nonaqueous secondary battery as in any one of claims 4 to 6, wherein said protective layer contains organic fine particles.

10. The nonaqueous secondary battery as in any one of claims 4 to 6, wherein said protective layer contains organic fine particles and inorganic fine particles.

11. The nonaqueous secondary battery as in any one of claims 4 to 10, wherein said protective layer has substantially no electrical conductivity.

12. The nonaqueous secondary battery as in any one of claims 4 to 10, wherein said protective layer is electrically conductive.

13. The nonaqueous secondary battery as in claim 11,

wherein said protective layer contains particles having substantially no electrical conductivity.

14. The nonaqueous secondary battery as in claim 11 or 12, wherein said particles in said protective layer are electrically conductive particles.

15. The nonaqueous secondary battery as in any one of claims 7 to 10, wherein said particles in said protective layer are inorganic chalcogenide particles.

16. The nonaqueous secondary battery as in claim 15, wherein said inorganic chalcogenide particles contain at least one oxide selected from the group consisting of oxides of sodium, potassium, magnesium, calcium, strontium, zirconium, aluminum, and silicon.

17. The nonaqueous secondary battery as in claim 16, wherein the inorganic oxide is alumina, silicon dioxide or zirconia.

18. The nonaqueous secondary battery as in any one of claims 7 to 10, wherein said conductive particles are at least one particle selected from the group consisting of metal particles and carbon particles.

19. The nonaqueous secondary battery as in claim 18, wherein said conductive particles are carbon particles.

20. The nonaqueous secondary battery as in any one of claims 7 to 10, wherein water-insoluble or sparingly water-soluble particles in said protective layer are particles of an alkali metal salt.

21. The nonaqueous secondary battery as in any one of claims 7 to 10, wherein water-insoluble or sparingly water-soluble particles in said protective layer are particles of an alkaline earth metal salt.

22. The nonaqueous secondary battery as in claim 20, wherein said alkali metal salt is a lithium salt.

23. The nonaqueous secondary battery as in claim 9 or 10, wherein said organic fine particles have a minimum film-forming temperature (MFT) of from 80 to 200°C.

24. The nonaqueous secondary battery as in claim 9 or 10, wherein said organic fine particles in said protective layer are polyethylene fine particles.

25. The nonaqueous secondary battery as in claim 9 or 10, wherein said inorganic fine particles in said protective layer are selected from the group consisting of lithium fluoride, silicon carbide, and boron nitride.

26. The nonaqueous secondary battery as in any one of claims 1 to 25, wherein said protective layer has a thickness of from 1 to 40 μm.

27. The nonaqueous secondary battery as in claim 26, wherein said protective layer contains electrically conductive particles in a proportion of 2.5 to 96% by weight.

28. The nonaqueous secondary battery as in any one of claims 1 to 27, wherein the negative electrode material capable of reversibly intercalating and deintercalating lithium contains at least one of oxides of metals and

semimetals belonging to the groups 13 to 15 of the Periodic Table.

29. The nonaqueous secondary battery as in claim 28, wherein said negative electrode is a composite oxide containing tin.

30. The nonaqueous secondary battery as in claim 29, wherein said composite oxide containing tin is represented by formula (1):

$$SnM^1_aO_t \quad (1)$$

wherein M^1 represents two or more elements selected from the group consisting of Al, B, P, Si, Ge, elements of groups 1 to 3 of the Periodic Table, and halogen elements; a represents a number of from 0.2 to 2; and t represents a number of from 1 to 6.

31. The nonaqueous secondary battery as in claim 30, wherein said composite oxide containing tin is represented by formula (3):

$$SnM^3_cM^4_dO_t \quad (3)$$

wherein M^3 represents at least two elements selected from the group consisting of Al, B, P, and Si; M^4 represents at least one element selected from the group consisting of elements of groups 1 to 3 of the Periodic Table and halogen elements; c represents a number of from 0.2 to 2; d represents a number of from 0.01 to 1; provided that $0.2 < c + d < 2$; and t represents a number of from 1 to 6.

32. The nonaqueous secondary battery as in any one

of claims 1 to 31, wherein said nonaqueous electrolyte contains at least one carbonic ester.